

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Callie Shosho Examiner #: 75636 Date: 1/31/03
Art Unit: 1714 Phone Number 305-0208 Serial Number: 091890.457
Mail Box and Bldg/Room Location: CP3-5021 Results Format Preferred (circle): PAPER DISK E-MAIL
CP3-4 DSI (mailbox)

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract:

Title of Invention: Printing Inks
Inventors (please provide full names): Dean Thetford, Geoffrey Richard Rothwell

Earliest Priority Filing Date: 2/4/99

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Can you please find the polymer (functions as dispersant) of formula 1? It is made by the process found in ~~claims~~ claims 3+4.

Thank You

STAFF USE ONLY

Searcher: Kimberly RM
Searcher Phone #: 305-3542
Searcher Location: E/C 1701
Date Searcher Picked Up: 1/3/03
Date Completed: 1/3/03
Searcher Prep & Review Time: _____
Clerical Prep Time: _____
Online Time: 45 min

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) _____
Bibliographic ☒ _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

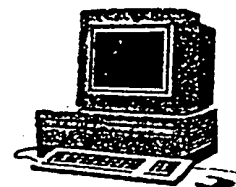
Vendors and cost where applicable

STN ☒ _____
Dialog _____
Questel/Orbit _____
Dr. Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet _____
Other (specify) _____

EIC1700

Search Results

Feedback Form (Optional)



Scientific & Technical Information Center

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact *the EIC searcher* who conducted the search *or contact*:

Kathleen Fuller, Team Leader, 308-4290, CP3/4 3D62

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:

Example:

➤ Relevant prior art found, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

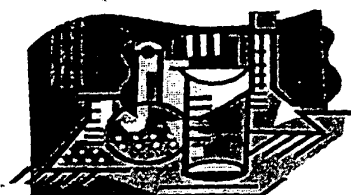
- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art not found:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Search results were not useful in determining patentability or understanding the invention.

Other Comments:

Drop off completed forms in CP3/4 - 3D62 .



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Scientific and Technical Information Center

Search Results Feedback Form

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Kathleen Fuller 308-4290

John Calve 308-4139

Barba Koroma 305-3542

Eric Linnell 308-4143

All searchers are located in the library in CP3/4 3D62

=> file regf
'REGF' IS NOT A VALID FILE NAME
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STRUCTURE FILE UPDATES: 2 FEB 2003 HIGHEST RN 484639-64-7
DICTIONARY FILE UPDATES: 2 FEB 2003 HIGHEST RN 484639-64-7

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when
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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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FILE COVERS 1907 - 3 Feb 2003 VOL 138 ISS 6
FILE LAST UPDATED: 2 Feb 2003 (20030202/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

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L25 1 SEA FILE=REGISTRY ABB=ON PLU=ON 27941-02-2/RN
L26 1 SEA FILE=REGISTRY ABB=ON PLU=ON 26913-06-4/RN

KOROMA EIC1700

L27 1 SEA FILE=REGISTRY ABB=ON PLU=ON 143-28-2/RN
 L28 1 SEA FILE=REGISTRY ABB=ON PLU=ON 27924-99-8/RN
 L29 1 SEA FILE=REGISTRY ABB=ON PLU=ON 9002-98-6/RN
 L30 9 SEA FILE=CAPLUS ABB=ON PLU=ON L25 AND (L26 OR L29)
 L31 1 SEA FILE=CAPLUS ABB=ON PLU=ON L27 AND L28 AND (L26 OR L29)
 L32 24 SEA FILE=CAPLUS ABB=ON PLU=ON L25 AND INK?
 L35 18 SEA FILE=CAPLUS ABB=ON PLU=ON L32 AND (?AMINE? OR ?IMINE?)
 L36 20 SEA FILE=CAPLUS ABB=ON PLU=ON L31 OR L30 OR L35

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L36 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:768022 CAPLUS
 DOCUMENT NUMBER: 137:280807
 TITLE: Dispersants for jet printing **inks**
 INVENTOR(S): Mizuno, Shinichiro; Ikegami, Fumiko; Fujimatsu,
 Shinya; Haraguchi, Kazumichi
 PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

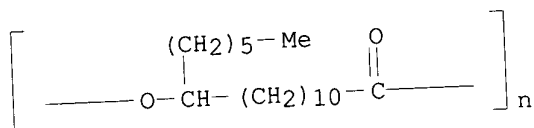
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002294121	A2	20021009	JP 2001-102775	20010402
			JP 2001-102775	20010402

PRIORITY APPLN. INFO.:
 AB Precondensates of aliph. hydroxycarboxylic acids optionally contg. aliph. carboxylic acids are treated with **polyethylenimine** to acid no. <8 mg KOH/g to prep. dispersing agents. Thus, an **ink** contained a reaction product of 400 g PHF 33 [poly(12-hydroxystearic acid)] with 100 g Epomin SP 018 28, Lionogen Red YF 70, a low-viscosity liq. paraffin 600, and dioctyl sebacate 302 g.
 IT **9002-98-6DP**, Epomin SP 018, reaction products with poly(hydroxystearic acid) and lauric acid
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
 (Epomin SP 018; polyester-**polyethylenimine** reaction products as dispersants for jet printing **inks**)
 RN 9002-98-6 CAPLUS
 CN Aziridine, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 151-56-4
 CMF C2 H5 N



IT **27941-02-2DP**, reaction products with lauric acid and **polyethylenimine**
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP

(Preparation); USES (Uses)
 (polyester-**polyethylenimine** reaction products as dispersants
 for jet printing **inks**)
 RN 27941-02-2 CAPLUS
 CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IC ICM C09D011-00
 ICS B41J002-01; B41M005-00; C08G073-04
 CC 42-12 (Coatings, Inks, and Related Products)
 ST polyhydroxystearic acid **polyethylenimine** reaction product
 dispersant **ink**; jet printing **ink** dispersing agent
 IT Carboxylic acids, uses
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
 (Preparation); USES (Uses)
 (hydroxy, condensates, reaction products with **polyethylenimine**
 ; polyester-**polyethylenimine** reaction products as dispersants
 for jet printing **inks**)
 IT **Inks**
 (jet-printing; polyester-**polyethylenimine** reaction products
 as dispersants for jet printing **inks**)
 IT Dispersing agents
 Pigments, nonbiological
 (polyester-**polyethylenimine** reaction products as dispersants
 for jet printing **inks**)
 IT Carboxylic acids, uses
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
 (Preparation); USES (Uses)
 (reaction products with hydroxycarboxylic acid condensates and
polyethylenimine; polyester-**polyethylenimine** reaction
 products as dispersants for jet printing **inks**)
 IT Polyesters, uses
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
 (Preparation); USES (Uses)
 (reaction products with **polyethylenimine**; polyester-
polyethylenimine reaction products as dispersants for jet
 printing **inks**)
 IT 9002-98-6DP, Epomin SP 018, reaction products with
 poly(hydroxystearic acid) and lauric acid
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
 (Preparation); USES (Uses)
 (Epomin SP 018; polyester-**polyethylenimine** reaction products
 as dispersants for jet printing **inks**)
 IT 27924-99-8DP, Poly(12-hydroxystearic acid), reaction products with lauric
 acid and **polyethylenimine**
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
 (Preparation); USES (Uses)
 (PHF 33; polyester-**polyethylenimine** reaction products as
 dispersants for jet printing **inks**)
 IT 143-07-7DP, Lauric acid, reaction products with **polyethyleneimine**
 and poly(hydroxystearic acid) 27941-02-2DP, reaction products
 with lauric acid and **polyethylenimine** 466654-27-3P,
 Aziridine-12-hydroxystearic acid block copolymer

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(polyester-**polyethylenimine** reaction products as dispersants for jet printing inks)

IT 185070-13-7, Lionogen Red YF
RL: TEM (Technical or engineered material use); USES (Uses)
(polyester-**polyethylenimine** reaction products as dispersants for jet printing inks)

L36 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:228774 CAPLUS

DOCUMENT NUMBER: 134:254283

TITLE: Dispersants prepared from reaction of polyesters with preformed **polyimines** or **polyamines**

INVENTOR(S): Thetford, Dean; Maxwell, Ian Donald; Slater, Lindsay
Anne

PATENT ASSIGNEE(S): Avecia Limited, UK

SOURCE: PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001021298	A1	20010329	WO 2000-GB3335	20000831
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:				
GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000013980	A	20020507	BR 2000-13980	20000831
EP 1224028	A1	20020724	EP 2000-956686	20000831
R:				
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
PRIORITY APPLN. INFO.:			GB 1999-22039	A 19990918
			WO 2000-GB3335	W 20000831

AB A dispersant comprises a **polyamine** [e.g., poly(allyl amine)] or a **polyimine** (e.g., **polyethyleneimine**) backbone chain contg. side chains of two or more different polyester chains, in which at least one of which is derived from a hydroxy-C1-6-alkylcarboxylic acid or lactone (e.g., .epsilon.-caprolactone or .delta.-valerolactone, or alkyl derivs.), and the other polyester chain is derived from a hydroxy-C8-30-alkylcarboxylic acid (e.g., 12-hydroxystearic acid) or hydroxy-C8-30-alkenecarboxylic acid (e.g., ricinoleic acid) or lactone. The dispersant is typically prepd. by reaction of the polyesters with the preformed **polyamine** or **polyimine** (no. av. mol. wt. 500-600,000), which results in the two types of polymers being attached by salt and amide linkages. The dispersants are esp. suitable for dispersing pigments, a particulate solid, and a film-forming resin into an org. medium, and esp. suitable for prepn. of millbases, paints, and printing inks.

IT 9002-98-6DP, Aziridine homopolymer, reaction products with polyesters 27941-02-2DP, Poly[oxy(1-hexyl-12-oxo-1,12-

dodecanediyl]], reaction products with **polyethylenimine**
 RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic
 preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (dispersants; dispersants prepd. from reaction of polyesters with
 preformed **polyimines** or **polyamines**)

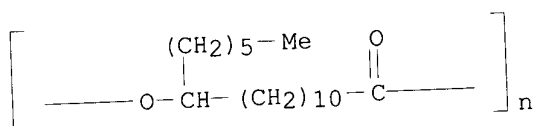
RN 9002-98-6 CAPLUS
 CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4
 CMF C2 H5 N



RN 27941-02-2 CAPLUS
 CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IC ICM B01F017-00
 CC 48-11 (Unit Operations and Processes)
 Section cross-reference(s): 38, 42
 ST polyester **polyamine polyimine** dispersant;
 hydroxycarboxylic acid polyester **polyimine** dispersant;
 ricinoleic acid polyester **polyimine** dispersant; caprolactone
 polyester **polyimine** dispersant; valerolactone polyester
polyimine dispersant; paint polyester **polyimine**
 dispersant; printing ink polyester **polyimine**
 dispersant
 IT Polyesters, reactions
 RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic
 preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (caprolactone-based, reaction products with **polyamines** and
polyimines; dispersants prepd. from reaction of polyesters with
 preformed **polyimines** or **polyamines**)
 IT Dispersing agents
 Paints
 (dispersants prepd. from reaction of polyesters with preformed
polyimines or **polyamines**)
 IT Pigments, nonbiological
 (dispersion of; dispersants prepd. from reaction of polyesters with
 preformed **polyimines** or **polyamines**)
 IT Polyesters, reactions
 RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic
 preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (hydroxycarboxylic acid-based, reaction products with
polyamines and **polyimines**; dispersants prepd. from
 reaction of polyesters with preformed **polyimines** or
polyamines)

KOROMA EIC1700

- IT Polyesters, reactions
RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(lactone-based, reaction products with **polyamines** and **polyimines**; dispersants prepd. from reaction of polyesters with preformed **polyimines** or **polyamines**)
- IT **Inks**
(printing; dispersants prepd. from reaction of polyesters with preformed **polyimines** or **polyamines**)
- IT **Polyamines**
RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(reaction products with polyesters; dispersants prepd. from reaction of polyesters with preformed **polyimines** or **polyamines**)
- IT Polyesters, reactions
RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(reaction products, with **polyamines** and **polyimines**; dispersants prepd. from reaction of polyesters with preformed **polyimines** or **polyamines**)
- IT 1309-37-1, Bayferrox Red 130M, miscellaneous
RL: MSC (Miscellaneous)
(Bayferrox Red 130M, dispersion of, in paints; dispersants prepd. from reaction of polyesters with preformed **polyimines** or **polyamines**)
- IT 9002-98-6DP, Aziridine homopolymer, reaction products with polyesters 24980-41-4DP, Poly(.epsilon.-caprolactone), reaction products with **polyethylenimine** 25248-42-4DP, Poly[oxy(1-oxo-1,6-hexanediyl)], reaction products with **polyethylenimine** 27924-99-8DP, Poly(12-hydroxystearic acid), reaction products with **polyethylenimine** 27925-02-6DP, Poly(ricinoleic acid), reaction products with **polyethylenimine** 27941-02-2DP, Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)], reaction products with **polyethylenimine** 27941-05-5P, Ricinoleic acid homopolymer, sru 30551-89-4DP, Poly(allyl amine), reaction products with polyesters 58070-96-5DP, 12-Hydroxystearic acid homopolymer, sru, monooctadecanoate, reaction products with **polyethylenimine** 58128-22-6DP, 12-Hydroxystearic acid homopolymer, octadecanoate, reaction products with **polyethylenimine** 101902-92-5DP, reaction products with **polyethylenimine** 161857-77-8DP, reaction products with **polyethylenimine** 207806-62-0DP, 2-Oxepanone, polymer with tetrahydro-2H-pyran-2-one, monododecanoate, reaction products with **polyethylenimine** 207806-68-6DP, 2-Oxepanone, 5-methyl-, polymer with 2-oxepanone, mono(methoxyacetate), reaction products with **polyethylenimine** 245651-08-5DP, Acetic acid, hydroxy-, polymer with 2-oxepanone, monododecanoate, reaction products with **polyethylenimine** 249534-73-4DP, 2-Oxepanone, polymer with tetrahydro-2H-pyran-2-one, 2-[(1-oxo-2-propenyl)oxy]ethyl ester, reaction products with **polyethylenimine** 331463-32-2DP, reaction products with **polyethylenimine** 331463-33-3DP, reaction products with **polyethylenimine**
RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(dispersants; dispersants prepd. from reaction of polyesters with preformed **polyimines** or **polyamines**)
- IT 28211-77-0, Laropal A 81 84540-57-8, Methoxypropyl acetate
RL: MSC (Miscellaneous)
(paints contg.; dispersants prepd. from reaction of polyesters with preformed **polyimines** or **polyamines**)

L36 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2000:553659 CAPLUS
 DOCUMENT NUMBER: 133:152127
 TITLE: Nonaqueous printing **inks** for drop-on-demand
ink-jet printers
 INVENTOR(S): Rothwell, Geoffrey Richard; Thetford, Dean
 PATENT ASSIGNEE(S): Avecia Limited, UK
 SOURCE: PCT Int. Appl., 18 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000046313	A1	20000810	WO 2000-GB60	20000112
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1159358	A1	20011205	EP 2000-900261	20000112
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
JP 2002536488	T2	20021029	JP 2000-597376	20000112
PRIORITY APPLN. INFO.:			GB 1999-2386	A 19990204
			WO 2000-GB60	W 20000112

AB The drop-on-demand **ink-jet** printing **ink** comprises a pigment, a nonaq. medium and a dispersant [T(OAOCO)n]pZ (T = H, polymn. terminating group; A = linear C8-20 alkylene; Z = residue of a **polyamine** or **polyimine**; n = 2-10; p .gtoreq.2). Thus, a **ink** compn. comprised Regal 250R (carbon black) 5.00, 50% soln. of 7/1 poly(12-hydroxystearic acid) and **polyethyleneimine** in Lytol 1.37, Solsperse 5000 (quaternary ammonium salt of sulfonated copper phthalocyanine) 0.09 and Lytol (hydrocarbon solvent) 3.54 parts.

IT 9002-98-6 26913-06-4, Poly[imino(1,2-ethanediyl)]
 27924-99-8, Poly(12-hydroxystearic acid) 27941-02-2
 RL: TEM (Technical or engineered material use); USES (Uses)
 (dispersant; nonaq. printing **inks** for drop-on-demand **ink-jet** printers)

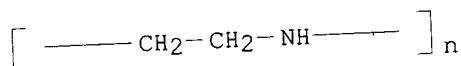
RN 9002-98-6 CAPLUS
 CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4
 CMF C2 H5 N



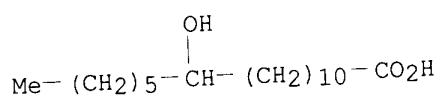
RN 26913-06-4 CAPLUS
CN Poly[imino(1,2-ethanediyl)] (9CI) (CA INDEX NAME)



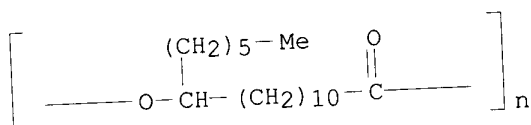
RN 27924-99-8 CAPLUS
CN Octadecanoic acid, 12-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 106-14-9
CMF C18 H36 O3



RN 27941-02-2 CAPLUS
CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IT 143-28-2, Oleyl alcohol
RL: TEM (Technical or engineered material use); USES (Uses)
(solvent; nonaq. printing **inks** for drop-on-demand **ink**
-jet printers)

RN 143-28-2 CAPLUS
CN 9-Octadecen-1-ol, (9Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM C09D011-00
CC 42-12 (Coatings, Inks, and Related Products)
ST jet printing **ink** nonaq; polyhydroxystearic acid
polyethyleneimine dispersant printing **ink**; polyester
polyimine dispersant printing **ink**
IT Hydrocarbons, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(arom. or aliph., solvent; nonaq. printing **inks** for
drop-on-demand **ink**-jet printers)
IT **Polyamines**
Polyesters, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(dispersing agents; nonaq. printing **inks** for drop-on-demand

KOROMA EIC1700

ink-jet printers)

IT Alcohols, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(fatty, aliph., solvent; nonaq. printing inks for
drop-on-demand ink-jet printers)

IT Inks
(jet-printing; nonaq. printing inks for drop-on-demand
ink-jet printers)

IT Dispersing agents
(nonaq. printing inks for drop-on-demand ink-jet
printers)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, alkyl substituted; nonaq. printing inks for
drop-on-demand ink-jet printers)

IT 9002-98-6 26913-06-4, Poly[imino(1,2-ethanediyl)]
27924-99-8, Poly(12-hydroxystearic acid) 27941-02-2
RL: TEM (Technical or engineered material use); USES (Uses)
(dispersant; nonaq. printing inks for drop-on-demand
ink-jet printers)

IT 190606-44-1, Uravar FN 5
RL: TEM (Technical or engineered material use); USES (Uses)
(nonaq. printing inks for drop-on-demand ink-jet
printers)

IT 143-28-2, Oleyl alcohol 102577-12-8, Lytol
RL: TEM (Technical or engineered material use); USES (Uses)
(solvent; nonaq. printing inks for drop-on-demand ink
-jet printers)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:290901 CAPLUS
DOCUMENT NUMBER: 132:309760
TITLE: Dispersants, compositions and uses
INVENTOR(S): Thetford, Dean
PATENT ASSIGNEE(S): Avecia Limited, UK
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000024503	A1	20000504	WO 1999-GB2903	19990902
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, VZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 9956389	A1	20000515	AU 1999-56389	19990902
PRIORITY APPLN. INFO.:			GB 1998-23223	A 19981024
			GB 1999-2346	A 19990203

WO 1999-GB2903 W 19990902

AB The dispersants [T(OACO)n]pZ [A = C8-20 linear alkylene or alkenylene; T = H, polymn. terminating group; Z = residue of a **polyamine** or **polyimine** preferably with av. mol. wt. 500-600,000; n = 2-10; p .gtoreq.2; the wt. ratio of (T(OACO)n)p to Z is from 5:1 to 20:1] are particularly useful for dispersing particulate solids in org. media. The dispersants are useful in paints, printing **inks**, multimedia tinters, etc. Thus, heating 55 parts poly(12-hydroxystearic acid) with 11 parts **polyethyleneimine** (mo. wt. 10,000) gave a brown viscous liq. showing good pigment dispersing property in hydrocarbon solvent.

IT 9002-98-6DP, reaction products with poly(hydroxystearic acid)
27941-02-2DP, Poly(12-hydroxystearic acid), sru, reaction products with **polyethyleneimine**

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)
(reaction products of poly(hydroxystearic acid) and **polyethyleneimine** as dispersants for pigments)

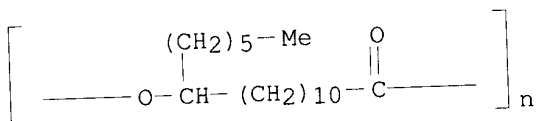
RN 9002-98-6 CAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4
CMF C2 H5 N



RN 27941-02-2 CAPLUS
CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IC ICM B01F017-00
CC 42-5 (Coatings, Inks, and Related Products)
Section cross-reference(s): 37

ST pigment dispersing agent paint; **polyamine** polyester reaction product dispersant; **polyimine** polyester reaction product dispersant

IT **Imines**
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)
(**polyimines**, reaction products with polyesters; reaction products of polyesters and **polyimines** as dispersants for paints and printing **inks**)

IT **Inks**
(printing; reaction products of poly(hydroxystearic acid) and **polyethyleneimine** as dispersants for pigments)

IT Paints
Pigments, nonbiological
(reaction products of poly(hydroxystearic acid) and

KOROMA EIC1700

polyethyleneimine as dispersants for pigments)

IT **Polyamines**
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)
 (reaction products, with polyesters; reaction products of polyesters and **polyamines** as dispersants for paints and printing inks)

IT Polyesters, uses
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)
 (reaction products, with **polyimines** or **polyamines**; reaction products of poly(hydroxystearic acid) and **polyethyleneimine** as dispersants for pigments)

IT **9002-98-6DP**, reaction products with poly(hydroxystearic acid) 27924-99-8DP, Poly(12-hydroxystearic acid), reaction products with **polyethyleneimine** 27941-02-2DP, Poly(12-hydroxystearic acid), sru, reaction products with **polyethyleneimine**
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)
 (reaction products of poly(hydroxystearic acid) and **polyethyleneimine** as dispersants for pigments)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:48441 CAPLUS
 DOCUMENT NUMBER: 130:155115
 TITLE: Pigment dispersion and **ink** composition for offset printing made from the same
 INVENTOR(S): Kinoshita, Hidenoro; Iwase, Takashi; Sato, Akihisa
 PATENT ASSIGNEE(S): Sakata Inx Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11012528	A2	19990119	JP 1997-166365	19970623

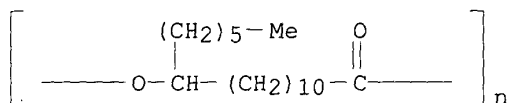
PRIORITY APPLN. INFO.: JP 1997-166365 19970623

AB The compn. comprises a pigment, an arom. and a basic and/or an acid group-contg. auxiliary dispersing agent, a polymer for dispersion the auxiliary dispersing agent, a solvent and a binder, wherein the auxiliary dispersing agent is made from mainly a monomer having arom. ring, a monomer having acid group and other monomers. Thus, an auxiliary was prepd. by the polymn. of 166.6 parts styrene and 34.4 parts methacrylic acid in the presence of AIBN and condensation reaction in stearyl alc. and xylene mixt. in the presence of tetra-Bu titanate at 150-160.degree. to gave an agent having wt. av. mol. wt. 4400 and acid value 32.

IT **27941-02-2DP**, 12-Hydroxystearic acid homopolymer, sru, aminated
 RL: MOA (Modifier or additive use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pigment dispersion and **ink** compn. for offset printing made from the same)

RN 27941-02-2 CAPLUS
 CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)

KOROMA EIC1700



IC ICM C09D017-00
ICS C09D011-10; C08F212-08; C08F220-10; C08G059-14
CC 42-12 (Coatings, Inks, and Related Products)
ST **ink** pigment auxiliary dispersant styrene copolymer; methacrylic acid copolymer pigment dispersant; offset printing **ink** dispersion aid
IT **Inks**
(lithog.; pigment dispersion and **ink** compn. for offset printing made from the same)
IT Dispersing agents
Polymerization
(pigment dispersion and **ink** compn. for offset printing made from the same)
IT Acrylic polymers, uses
RL: MOA (Modifier or additive use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pigment dispersion and **ink** compn. for offset printing made from the same)
IT 9010-92-8DP, Methacrylic acid-styrene copolymer, reaction product with stearyl alc. 9011-13-6DP, Maleic anhydride-styrene copolymer, reaction product with stearyl alc. 25167-42-4DP, Glycidyl methacrylate-styrene copolymer, reaction product with stearic acid 25167-42-4DP, Glycidyl methacrylate-styrene copolymer, reaction product with **stearylamine** 25167-42-4P, Glycidyl methacrylate-styrene copolymer 26010-51-5DP, Hydroxyethyl methacrylate-styrene copolymer, reaction product with succinic anhydride 27924-99-8DP, 12-Hydroxystearic acid homopolymer, reaction product with succinic anhydride **27941-02-2DP**, 12-Hydroxystearic acid homopolymer, sru, aminated **27941-02-2DP**, 12-Hydroxystearic acid homopolymer, sru, reaction product with succinic anhydride 29564-58-7DP, Glycidyl methacrylate-methyl methacrylate-styrene copolymer, reaction product with stearyl alc. 66251-30-7DP, Glycidyl methacrylate-vinyl toluene copolymer, reaction product with succinic anhydride 137000-03-4P, 2-Dimethylaminoethyl methacrylate-hydroxyethyl methacrylate-styrene copolymer
RL: MOA (Modifier or additive use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pigment dispersion and **ink** compn. for offset printing made from the same)

L36 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:816629 CAPLUS

DOCUMENT NUMBER: 130:96998

TITLE: Pigment dispersions containing modified novolak dispersing aids and offset printing **ink** compositions using them

INVENTOR(S): Kinoshita, Hidenoro; Iwase, Takashi; Sato, Akihisa

PATENT ASSIGNEE(S): Sakata Inx Corp., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

KOROMA EIC1700

PATENT INFORMATION:

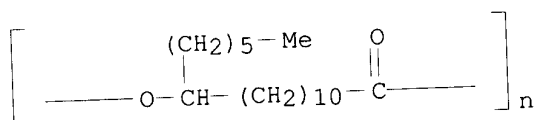
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10338835	A2	19981222	JP 1997-152561	19970610
			JP 1997-152561	19970610

PRIORITY APPLN. INFO.:

AB The compns. contain (A) 100 parts pigments, (B) .gtoreq.0.5 part modified novolak resins having basic or acidic groups as dispersing aids, (C) .gtoreq.0.5 part pigment-dispersing polymers having salt-formable acidic or basic groups with the dispersing aids, (D) solvents, and optionally (E) binder polymers provided that B + C = 1-51 parts. An **ink** compn. contg. Cu phthalocyanine 40, stearic acid- and succinic anhydride-treated YDPN 638 2, amino-terminated poly(12-hydroxystearic acid) 4, Tespol 1355 48, and a solvent 6 parts showed viscosity 230 Pa-s, yield value 38 Pa, and good storage stability.

IT **27941-02-2DP**, 12-Hydroxystearic acid homopolymer sru, reaction products with epoxy-modified novolaks and **amines**
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (offset printing **ink** compns. using modified novolak dispersing aids)

RN 27941-02-2 CAPLUS
 CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pigment-dispersing polymer; offset printing **ink** compns. using modified novolak dispersing aids)

IC ICM C09D017-00
 ICS C09D011-02

CC 42-12 (Coatings, Inks, and Related Products)

ST offset printing **ink** pigment dispersion; dispersing aid modified novolak salt; carboxy novolak amino terminated pigment dispersant; phenol novolak epoxy carboxylate pigment dispersant

IT **Inks**
 (lithog.; offset printing **ink** compns. using modified novolak dispersing aids)

IT Polyesters, uses
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (novolak epoxy resin-modified, pigment-dispersing polymer; offset printing **ink** compns. using modified novolak dispersing aids)

IT Pigments, nonbiological
 (offset printing **ink** compns. using modified novolak dispersing aids)

IT Epoxy resins, uses
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (phenolic, novolak, modified with acidic or basic groups; offset printing **ink** compns. using modified novolak dispersing aids)

IT Carbon black, uses
 RL: TEM (Technical or engineered material use); USES (Uses)

- (pigment; offset printing **ink** compns. using modified novolak dispersing aids)
- IT Phenolic resins, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(rosin-modified; offset printing **ink** compns. using modified novolak dispersing aids)
- IT 57-11-4DP, Stearic acid, reaction products with epoxy-modified novolaks
100-21-0DP, Terephthalic acid, esters with epoxy-modified novolaks
106-14-9DP, 12-Hydroxystearic acid, reaction products with epoxy-modified novolaks
108-30-5DP, Succinic anhydride, reaction products with epoxy-modified novolaks
124-30-1DP, **Stearylamine**, reaction products with epoxy-modified novolaks and polyesters
27924-99-8DP, 12-Hydroxystearic acid homopolymer, reaction products with epoxy-modified novolaks, carboxylic acids and **amines** **27941-02-2DP**, 12-Hydroxystearic acid homopolymer sru, reaction products with epoxy-modified novolaks and **amines** 105478-35-1DP, Epo Tohto YDPN 638, reaction products with carboxylic acids and **amines** or polyesters
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(offset printing **ink** compns. using modified novolak dispersing aids)
- IT 192828-15-2, Tespol 1355
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(offset printing **ink** compns. using modified novolak dispersing aids)
- IT 27924-99-8DP, 12-Hydroxystearic acid homopolymer, amino- or carboxy-terminated **27941-02-2DP**, 12-Hydroxystearic acid homopolymer, sru, amino- or carboxy-terminated
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pigment-dispersing polymer; offset printing **ink** compns. using modified novolak dispersing aids)
- IT 147-14-8, Copper phthalocyanine 5102-83-0, Disazo Yellow 5281-04-9, Carmine 6B
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(pigment; offset printing **ink** compns. using modified novolak dispersing aids)

L36 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:515447 CAPLUS
DOCUMENT NUMBER: 127:123091
TITLE: Polymeric dispersants, pigment dispersions and offset printing **ink** compositions
INVENTOR(S): Iwase, Koji; Kinoshita, Hideki; Sato, Teruhisa; Ishikawa, Hiroyuki
PATENT ASSIGNEE(S): Sakata Inx Corporation, Japan
SOURCE: Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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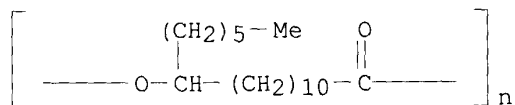
EP 781820	A2	19970702	EP 1996-120596	19961220
EP 781820	A3	19980107		
EP 781820	B1	19990908		
R: DE, ES, FR, GB				
JP 09302259	A2	19971125	JP 1996-243843	19960913
ES 2135838	T3	19991101	ES 1996-120596	19961220
CA 2193763	AA	19970626	CA 1996-2193763	19961223
PRIORITY APPLN. INFO.:			JP 1995-337383	19951225
			JP 1996-54944	19960312
			JP 1996-243843	19960913

AB A pigment dispersion is claimed comprising a pigment, a pigment dispersant, and, optionally, a binder resin. The pigment dispersion comprises, as pigment dispersant(s), .gtoreq.0.2 parts of a modified novolak resin (A) and/or a graft copolymer (B) relative to 100 parts of the pigment, (A) and (B) each having an arom. ring and a ring structure given by ring opening of an epoxy group by a carboxyl group of a hydroxycarboxylic acid or their deriv. **ink** compns. for offset printing contg. the pigment dispersion are also disclosed. A typical title compn. was prepd. by mixing and milling polyethylene wax and rosin-modified phenolic resin (Tespol 1355) varnish in a mixt. of linseed oil and a com. solvent (Solvent No. 5) with an **ink** base contg. Cu phthalocyanine pigment, reaction product of poly(12-hydroxystearic acid) with glycidyl methacrylate-styrene copolymer (prepn. given) as pigment dispersant, Tespol 1355, linseed oil and Solvent No. 5.

IT **27941-02-2DP**, 12-Hydroxystearic acid polymer, sru, reaction products with epoxy-contg. polymers
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dispersants; polymeric dispersants, pigment dispersions and offset printing **ink** compns.)

RN 27941-02-2 CAPLUS

CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IC ICM C09D017-00
 ICS C09D011-02

CC 42-12 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 37

ST offset printing **ink** compn pigment dispersant; pigment dispersant modified novolak resin prepn; hydroxystearic acid polymer deriv prepn dispersant; polyhydroxystearate glycidyl methacrylate ester macromer dispersant; styrene glycidyl methacrylate copolymer pigment dispersant

IT Polyesters, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (aliph., reaction products, with glycidyl Ph ether and phenol and formalin, dispersants; polymeric dispersants, pigment dispersions and offset printing **ink** compns.)

IT Phenolic resins, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (epoxy, reaction products, with poly(12-hydroxystearic acid), stearates, dispersants; polymeric dispersants, pigment dispersions and

- offset printing **ink** compns.)
- IT **Inks**
(lithog.; pigment dispersion and offset printing **ink** compn. contg. modified novolak resins or polyesters as pigment dispersing agents)
- IT Phenolic resins, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(modified with 12-hydroxystearic acid-glycidyl Ph ether reaction products, dispersants; polymeric dispersants, pigment dispersions and offset printing **ink** compns.)
- IT Phenolic resins, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(novolak, reaction products, with 12-hydroxystearic acid-glycidyl Ph ether condensate, dispersants; polymeric dispersants, pigment dispersions and offset printing **ink** compns.)
- IT Epoxy resins, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(phenolic, reaction products, with poly(12-hydroxystearic acid), stearates, dispersants; polymeric dispersants, pigment dispersions and offset printing **ink** compns.)
- IT Dispersing agents
Pigments, nonbiological
(pigment dispersion and offset printing **ink** compn. contg. modified novolak resins or polyesters as pigment dispersing agents)
- IT Linseed oil
RL: TEM (Technical or engineered material use); USES (Uses)
(pigment dispersion and offset printing **ink** compn. contg. modified novolak resins or polyesters as pigment dispersing agents)
- IT 192709-74-3P, 12-Hydroxystearic acid-Styrene copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dispersant; polymeric dispersants, pigment dispersions and offset printing **ink** compns.)
- IT 57-11-4DP, Octadecanoic acid, esters with Epikote 154 and poly(hydroxystearic acid), uses 64-19-7DP, Acetic acid, esters with Epikote 154 and poly(hydroxystearic acid), uses 101-90-6DP, Resorcinol diglycidyl ether, reaction products with phenol novolak resin 106-14-9DP, 12-Hydroxystearic acid, reaction products with glycidyl Ph ether and phenol novolak resin 110-15-6DP, Butanedioic acid, esters with Epikote 154 and poly(hydroxystearic acid), uses 122-60-1DP, reaction products with 12-hydroxystearic acid and phenol novolak resin 124-30-1DP, 1-Octadecanamine, amides with Epikote 154 and poly(hydroxystearic acid) 4223-14-7DP, reaction products with modified phenol novolak resin 9003-35-4DP, modified with 12-hydroxystearic acid-glycidyl Ph ether reaction products 15895-57-5DP, reaction products with phenol novolak resin 25167-42-4DP, Glycidyl methacrylate-Styrene copolymer, reaction products with poly(hydroxystearic acid) 27924-99-8DP, 12-Hydroxystearic acid polymer, reaction products with glycidyl Ph ether and phenol novolak resin 27941-02-2DP, 12-Hydroxystearic acid polymer, sru, reaction products with epoxy-contg. polymers 29564-58-7DP, Glycidyl methacrylate-Methyl methacrylate-Styrene copolymer, reaction products with poly(hydroxystearic acid) 52300-37-5DP, reaction products with modified phenol novolak resin 63939-13-9DP, Epikote 154, reaction products with poly(hydroxystearic acid), stearates 66251-30-7DP, Glycidyl methacrylate-Vinyltoluene copolymer, reaction products with poly(hydroxystearic acid)

67076-27-1DP, p-Chlorostyrene-Glycidyl methacrylate copolymer, reaction products with poly(hydroxystearic acid) 86249-19-6DP, Benzyl methacrylate-Glycidyl methacrylate copolymer, reaction products with poly(hydroxystearic acid) 94290-63-8DP, 2,3-Epoxy-2-methylpropyl methacrylate-Styrene copolymer, reaction products with poly(hydroxystearic acid) 192709-72-1DP, Dimethylstyrene-Glycidyl methacrylate copolymer, reaction products with poly(hydroxystearic acid) 192709-73-2P, 12-Hydroxystearic acid polymer glycidyl methacrylate ester-Styrene graft copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dispersants; polymeric dispersants, pigment dispersions and offset printing **ink** compns.)

IT 147-14-8P, Copper phthalocyanine

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pigment; polymeric dispersants, pigment dispersions and offset printing **ink** compns.)

IT 192828-15-2, Tespol 1355

RL: TEM (Technical or engineered material use); USES (Uses)
(varnish; polymeric dispersants, pigment dispersions and offset printing **ink** compns.)

L36 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:508807 CAPLUS

DOCUMENT NUMBER: 127:191967

TITLE: Dispersants made of polyesters and polyalkylene-
polyamine-acrylonitrile adducts

INVENTOR(S): Tsuboyama, Hiroshi; Aoki, Shoichi; Yasaka, Masahiro

PATENT ASSIGNEE(S): Kawaken Fine Chemicals Co., Japan; Takebu Fine Chemicals K. K.

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

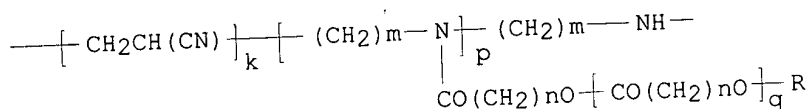
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

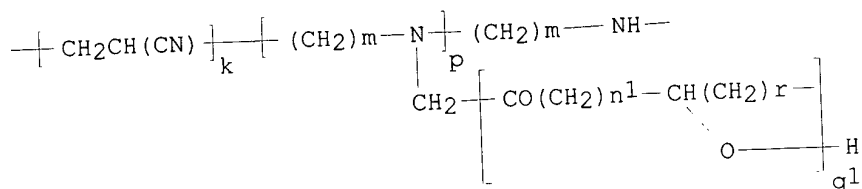
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09192470	A2	19970729	JP 1996-10223	19960124
PRIORITY APPLN. INFO.:			JP 1996-10223	19960124
GI				

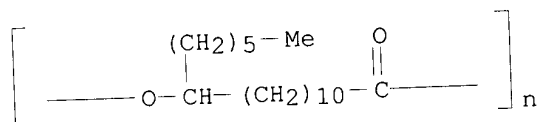


I



II

- AB Title dispersants, useful for coatings or **inks**, are made of polyester **amines** I (R = H, C2-24 hydroxycarboxylic acid residue; k = 1-15; m = 2-6; n = 2-11; p = 1-5; q = 2-100) or their salts. Alternatively the dispersants are made of polyester **amines** II (SIC; n' = 1-25; q' = 2-100; r = 0-20) or their salts. Thus, 100.5 g 141.4:300.5 .epsilon.-caprolactone-12-hydroxystearic acid copolymer and 13.0 g D 15A (polyalkylene-**polyamine**-acrylonitrile adduct) were reacted in N at 150.degree. for 3 h to give title dispersants, which was added to TiO2 dispersion at 5% per TiO2 and left for 120 min to show 75.2% retention of the initial dispersion.
- IT **27941-02-2DP**, Poly(12-hydroxystearic acid), sru, reaction products with polyalkylene-**polyamine**-acrylonitrile adducts
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (KF 1000; dispersants from polyalkylene **polyamine** -acrylonitrile adducts and polyesters for **inks** and coatings)
- RN 27941-02-2 CAPLUS
- CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



- IC ICM B01F017-52
 ICS C08G063-06; C08G063-91
- CC 42-5 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 37, 48
- ST polyalkylene **polyamine** acrylonitrile adduct polyester
 dispersant; coating **ink** dispersant; caprolactone hydroxystearic
 acid copolymer dispersant
- IT Coating materials
 Dispersing agents
Inks
 (dispersants from polyalkylene **polyamine**-acrylonitrile
 adducts and polyesters for **inks** and coatings)

- IT Polyoxyalkylenes, uses
Polyoxyalkylenes, uses
Polyoxyalkylenes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**polyamine**-polyester-; dispersants from polyalkylene
polyamine-acrylonitrile adducts and polyesters for **inks**
and coatings)
- IT Polyesters, uses
Polyesters, uses
Polyesters, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**polyamine**-polyoxyalkylene-; dispersants from polyalkylene
polyamine-acrylonitrile adducts and polyesters for **inks**
and coatings)
- IT **Polyamines**
Polyamines
Polyamines
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyester-polyoxyalkylene-; dispersants from polyalkylene
polyamine-acrylonitrile adducts and polyesters for **inks**
and coatings)
- IT **27941-02-2DP**, Poly(12-hydroxystearic acid), sru, reaction products with polyalkylene-**polyamine**-acrylonitrile adducts
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(KF 1000; dispersants from polyalkylene **polyamine**-acrylonitrile adducts and polyesters for **inks** and coatings)
- IT 106-14-9DP, 12-Hydroxystearic acid, reaction products of adducts of caprolactone and polyalkylene-**polyamine**-acrylonitrile adducts
502-44-3DP, 2-Oxepanone, reaction products with polyalkylene-**polyamine**-acrylonitrile adducts and hydroxystearic acid
103467-59-ODP, .epsilon.-Caprolactone-12-hydroxystearic acid copolymer, reaction products with polyalkylene-**polyamine**-acrylonitrile adducts 194044-57-ODP, D 15A, reaction products with caprolactone-hydroxystearic acid copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dispersants from polyalkylene **polyamine**-acrylonitrile adducts and polyesters for **inks** and coatings)

L36 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:369595 CAPLUS
DOCUMENT NUMBER: 126:344538
TITLE: Poly(**allylamine**) derivative dispersants for pigments
INVENTOR(S): Tanaka, Hiroyuki; Okayasu, Toshiaki; Sugiyama, Sae
PATENT ASSIGNEE(S): Ajinomoto Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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KOROMA EIC1700

EP 768321 A2 19970416 EP 1996-116509 19961015
 EP 768321 A3 19981223
 EP 768321 B1 20010321

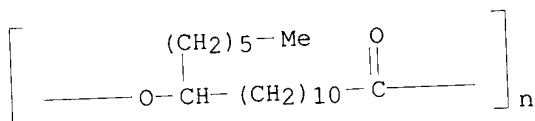
R: BE, DE, FR, GB, IT

JP 09169821 A2 19970630
 US 5760257 A 19980602

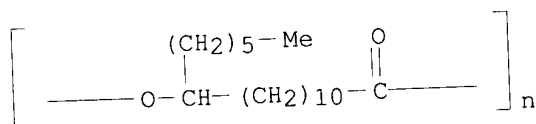
JP 1996-237036 19960906
 US 1996-733137 19961016
 JP 1995-267486 A 19951016
 JP 1996-237036 A 19960906

PRIORITY APPLN. INFO.:

- AB Pigment dispersants with good compatibility with a wide variety of resins, useful in paints and **inks**, comprise X[CH₂CH(CH₂R₁)]_nY [R₁ = a residue in which a free amino group or an amino group bound to a polyester, a polyamide or a copolycondensate of an ester and an amide by covalent bond (acid amide bond) formation or by salt (primary ammonium salt) formation through terminal carboxyl groups thereof, with .gtoreq.1 of an n-no. of R₁'s is a residue that has the covalent bond, n = 2-1000, X, Y = H, a polymn. initiator residue, or a chain transfer catalyst residue]. A typical dispersant was manufd. by reaction of a 10% aq. soln. of a poly(**allylamine**) having no.-av. mol. wt. 3000 with poly(12-hydroxystearate) having no.-av. mol. wt. 2550.
- IT **27941-02-2P**, Poly(12-hydroxystearic acid), sru
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (dispersant precursor; poly(**allylamine**) deriv. dispersants for pigments in paints and **inks**)
- RN 27941-02-2 CAPLUS
 CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



- IT **27941-02-2DP**, reaction products with poly(**allylamine**)
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
 (poly(**allylamine**) deriv. dispersants for pigments in paints and **inks**)
- RN 27941-02-2 CAPLUS
 CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



- IC ICM C08F008-00
 ICS C08G081-02; C09D007-00
- CC 42-6 (Coatings, Inks, and Related Products)
- ST polyester **polyallylamine** adduct dispersant pigment;
 polyhydroxystearate **polyallylamine** adduct dispersant pigment;
 polyamide **polyallylamine** adduct dispersant pigment; paint
ink pigment dispersant **polyallylamine** deriv
- IT Carbon black, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (Regal 400R, pigment; poly(**allylamine**) deriv. dispersants for

- pigments in paints and **inks**)
- IT Polyamides, preparation
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(dispersant precursor; poly(**allylamine**) deriv. dispersants for pigments in paints and **inks**)
- IT Dispersing agents
Inks
Paints
Pigments, nonbiological
(poly(**allylamine**) deriv. dispersants for pigments in paints and **inks**)
- IT Polyesters, uses
Polyesters, uses
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(polyamide-, reaction products, with poly(**allylamine**); poly(**allylamine**) deriv. dispersants for pigments in paints and **inks**)
- IT Polyamides, uses
Polyamides, uses
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(polyester-, reaction products, with poly(**allylamine**); poly(**allylamine**) deriv. dispersants for pigments in paints and **inks**)
- IT Polyamides, uses
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(reaction products with poly(**allylamine**); poly(**allylamine**) deriv. dispersants for pigments in paints and **inks**)
- IT Polyamides, uses
Polyesters, uses
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(reaction products, with poly(**allylamine**); poly(**allylamine**) deriv. dispersants for pigments in paints and **inks**)
- IT 1047-16-1
RL: MOA (Modifier or additive use); USES (Uses)
(Cinquasia Red Y-RT 795D, pigment; poly(**allylamine**) deriv. dispersants for pigments in paints and **inks**)
- IT 30551-89-4DP, Poly(**allylamine**), reaction products with polyesters or polyamides
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(PAA 1C, PAA 1LV; poly(**allylamine**) deriv. dispersants for pigments in paints and **inks**)
- IT 3049-71-6
RL: MOA (Modifier or additive use); USES (Uses)
(Paliogen L 3910HD, pigment; poly(**allylamine**) deriv. dispersants for pigments in paints and **inks**)
- IT 24937-05-1P, Adipic acid-ethylene glycol copolymer, sru 24938-37-2P, Adipic acid-ethylene glycol copolymer 27924-99-8P, Poly(12-hydroxystearic acid) 27941-02-2P, Poly(12-hydroxystearic acid), sru 29437-19-2P, Adipic acid-ethylene glycol-hexamethylenediamine copolymer 32131-17-2P, preparation 61128-18-5P, .epsilon.-Caprolactone-glycolic acid copolymer

- 103467-59-0P, .epsilon.-Caprolactone-12-hydroxystearic acid copolymer
 189625-24-9P, Adipic acid-ethylene glycol-12-hydroxystearic acid copolymer
 189625-26-1P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (dispersant precursor; poly(**allylamine**) deriv. dispersants
 for pigments in paints and **inks**)
- IT 65595-85-9P, Acrylic acid-butyl methacrylate-2-ethylhexyl
 methacrylate-2-hydroxyethyl methacrylate-methyl methacrylate-styrene
 copolymer
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
 engineered material use); PREP (Preparation); USES (Uses)
 (paint binder; poly(**allylamine**) deriv. dispersants for
 pigments in paints and **inks**)
- IT 25086-48-0, VAGH
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)
 (paint binder; poly(**allylamine**) deriv. dispersants for
 pigments in paints and **inks**)
- IT 13463-67-7, Tioxide TR92, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (pigment; poly(**allylamine**) deriv. dispersants for pigments in
 paints and **inks**)
- IT 24937-05-1DP, reaction products with poly(**allylamine**) 24938-37
 -2DP, reaction products with poly(**allylamine**) 27924-99-8DP,
 reaction products with poly(**allylamine**) 27941-02-2DP,
 reaction products with poly(**allylamine**) 29437-19-2DP, reaction
 products with poly(**allylamine**) 32131-17-2DP, reaction products
 with poly(**allylamine**) 61128-18-5DP, reaction products with
 poly(**allylamine**) 103467-59-0DP, reaction products with poly(
allylamine) 189625-24-9DP, reaction products with poly(
allylamine) 189625-26-1DP, reaction products with poly(
allylamine)
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
 (Preparation); USES (Uses)
 (poly(**allylamine**) deriv. dispersants for pigments in paints
 and **inks**)

L36 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2003 ACS

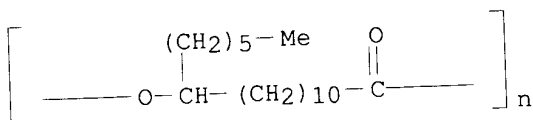
ACCESSION NUMBER: 1994:56910 CAPLUS
 DOCUMENT NUMBER: 120:56910
 TITLE: Pigment dispersants and offset printing **ink**
 compositions
 INVENTOR(S): Iwase, Koji; Oota, Hiroshi
 PATENT ASSIGNEE(S): Sakata Inks, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05271593	A2	19931019	JP 1990-409276	19901228
JP 2901352	B2	19990607	JP 1990-409276	19901228

PRIORITY APPLN. INFO.:
 AB The title agents are prepd. by treating CO₂H-contg. polyesters (acid value
 10-60) with **polyalkyleneamines** contg. 3-6 N at amino/carboxy

equiv ratio 0.8-1.0. Offset printing **inks** with good printability comprise pigments, resins, org. solvents, and 0.1-100% (based on pigments) above dispersants. Thus, 150 parts poly(12-hydroxystearic acid) and 2.8 parts **diethylenetriamine** were heated at 160-180.degree. for 3 h to give a polymer (**amine** value 5.0 mgKOH/g, acid value 8.0 mgKOH/g), 5 parts of which was blended with phthalocyanine blue 50, alkyd resin 10, rosin-modified phenolic resin varnish 10, and solvents 25 parts to give a base **ink** with good storage stability. An offset printing **ink** using the base **ink** formed prints with good gloss.

IT **27941-02-2DP**, Poly(12-hydroxystearic acid), sru, reaction products with **polyalkyleneimines**
 RL: PREP (Preparation)
 (prepn. of, dispersants, for offset printing **inks**)
 RN **27941-02-2** CAPLUS
 CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IC ICM C09D011-02
 ICS C09C003-10; C09D017-00
 CC 42-12 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 46
 ST pigment dispersant polyester **polyamine**; offset printing **ink** pigment dispersant; storage stability printing **ink** dispersant
 IT Dispersing agents
 (**polyamine**-polyesters, for pigments, in offset printing **inks**)
 IT Fatty acids, polymers
 RL: USES (Uses)
 (castor-oil, polymers, reaction products with **polyalkyleneimines**, dispersants, for offset printing **inks**)
 IT **Inks**
 (lithog., storage-stable, pigment-contg., dispersants for, **polyamine**-polyesters as)
 IT Polyesters, compounds
 RL: USES (Uses)
 (reaction products, with **polyalkyleneimines**, dispersants, for offset printing **inks**)
 IT 111-40-0DP, **Diethylenetriamine**, reaction products with poly(hydroxyalkanoates) 112-24-3DP, **Triethylenetetramine**, reaction products with poly(hydroxyalkanoates) 112-57-2DP, **Tetraethylenepentamine**, reaction products with poly(hydroxyalkanoates) 4067-16-7DP, **Pentaethylenehexamine**, reaction products with poly(hydroxyalkanoates) 27924-99-8DP, Poly(12-hydroxystearic acid), reaction products with **polyalkyleneimines** **27941-02-2DP**, Poly(12-hydroxystearic acid), sru, reaction products with **polyalkyleneimines**
 RL: PREP (Preparation)
 (prepn. of, dispersants, for offset printing **inks**)

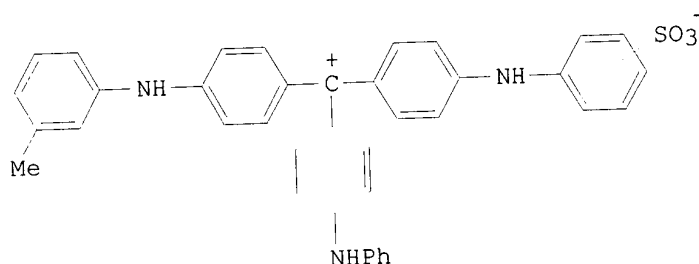
L36 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2003 ACS

KOROMA EIC1700

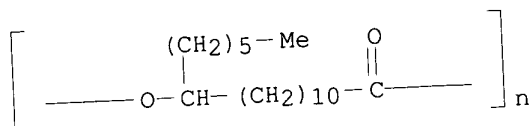
ACCESSION NUMBER: 1992:257452 CAPLUS
 DOCUMENT NUMBER: 116:257452
 TITLE: Sulfonated pararosaniline pigment pastes
 INVENTOR(S): Schneider, Manfred; Schunck, Rainer; Schnaitmann, Dieter; Brost, Udo
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany
 SOURCE: Ger. Offen., 10 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4114863	A1	19911114	DE 1991-4114863	19910507
DE 4114863	C2	19980910		
JP 05086303	A2	19930406	JP 1991-104398	19910509
JP 2997331	B2	20000111		
US 5645636	A	19970708	US 1994-333886	19941103
			DE 1990-4014953	A1 19900510
			US 1991-697103	B1 19910508

PRIORITY APPLN. INFO.: MARPAT 116:257452
 OTHER SOURCE(S):
 GI



- AB Pigment pastes with good flow and little thixotropy contain monosulfopararosanilines, alkyd resins with oil content 70-80%, hydrocarbon resins (mol. wt. 600-1700) or rosin esters, flushing aids prepd. by condensing **amines** or quaternary ammonium compds. with hydroxy acid polymers, and high-boiling mineral oils. The pararosaniline I was mixed (968 parts, as a 24.8% aq. filter cake) with 8.4 parts flushing aid prepd. from poly(12-hydroxystearic acid) (d.p. 6) and Me2N(CH2)3NH2 and 160 parts 1:1:1 alkyd resin-hydrocarbon resin-mineral oil mixt. and flushed very rapidly to give a paste which, after vacuum drying, contained >0.5% H2O.
- IT **27941-02-2D**, 12-Hydroxystearic acid polymer, SRU, reaction products with **dimethylpropanediamine**
 RL: USES (Uses)
 (flushing aids, for pararosaniline pigment pastes)
- RN 27941-02-2 CAPLUS
 CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



- IC ICM C09B067-20
ICS C09B011-10; C09B069-10; C09D017-00; C09D011-10
- CC 42-6 (Coatings, Inks, and Related Products)
- ST pararosaniline pigment paste manuf; flushing aid pigment paste; polyester
aminated flushing aid; alkyl resin pigment paste; mineral oil pigment
paste; hydroxystearate polymer flushing aid
- IT Alkyd resins
Paraffin oils
Petroleum resins
RL: USES (Uses)
(in pararosaniline pigment pastes)
- IT Pigments
(pararosanilines, pastes, formulation and flushing of)
- IT **Amines**, compounds
RL: USES (Uses)
(aliph., reaction products, with hydroxy acid polymers, flushing aids
for pararosaniline pigment pastes)
- IT Resin acids and Rosin acids
RL: USES (Uses)
(esters, in pararosaniline pigment pastes)
- IT **Inks**
(printing, pararosaniline pigment pastes for, formulation and flushing
of)
- IT Polyesters, compounds
RL: USES (Uses)
(reaction products, with **amines**, flushing aids for
pararosaniline pigment pastes)
- IT Quaternary ammonium compounds, compounds
RL: USES (Uses)
(reaction products, with hydroxy acid polymers, flushing aids for
pararosaniline pigment pastes)
- IT 109-55-7D, N,N-Dimethyl-1,3-**propanediamine**, reaction products
with poly(hydroxystearic acid) 27924-99-8D, 12-Hydroxystearic acid
polymer, reaction products with **dimethylpropanediamine**
27941-02-2D, 12-Hydroxystearic acid polymer, SRU, reaction
products with **dimethylpropanediamine**
RL: USES (Uses)
(flushing aids, for pararosaniline pigment pastes)
- IT 6417-46-5 76608-07-6
RL: USES (Uses)
(pigment pastes, formulation and flushing of)
- L36 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:175462 CAPLUS
DOCUMENT NUMBER: 116:175462
TITLE: Liquid colorant/additive concentrate for incorporation
into plastics
INVENTOR(S): Burditt, Neil A.; Abrams, Richard L.
PATENT ASSIGNEE(S): Ferro Corp., USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

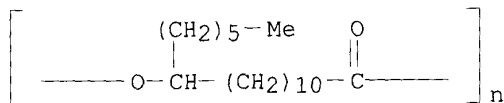
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9200354	A1	19920109	WO 1991-US4406	19910621
W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MN, MW, NL, NO, PL, RO, SD, SE, SU				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG				
US 5157067	A	19921020	US 1991-686033	19910416
CA 2085360	AA	19911228	CA 1991-2085360	19910621
AU 9182857	A1	19920123	AU 1991-82857	19910621
EP 536303	A1	19930414	EP 1991-913233	19910621
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL				
US 5308395	A	19940503	US 1992-878358	19920604
PRIORITY APPLN. INFO.:			US 1990-545350	19900627
			US 1991-686033	19910416
			WO 1991-US4406	19910621

AB A liq. conc., suitable for use in coloring or modifying plastics to reduce screw-slippage, H2O carry-over, and uneven flow, comprises (1) a vehicle of .gtoreq.15% of .gtoreq.1 org. rosin and .gtoreq.1 surfactant; and (2) .gtoreq.1 colorant or additive; the vehicle optionally has .gtoreq.1 org. diluent of 10 P viscosity. Thus, a liq. colorant conc. comprised CR-834 TiO2 70, Hypermer LP-1 1.5, and Hercoflex 500 28.8%. The conc. had viscosity of .apprx.300-500 P.

IT **27941-02-2**
 RL: USES (Uses)
 (liq. concs. contg. colorant and rosin and, for plastics)

RN 27941-02-2 CAPLUS

CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IT **9002-98-6D**, reaction products with poly(hydroxystearic acid)
27941-02-2
 RL: USES (Uses)
 (liq. concs. contg. rosin and colorants and, for plastics)

RN 9002-98-6 CAPLUS

CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4

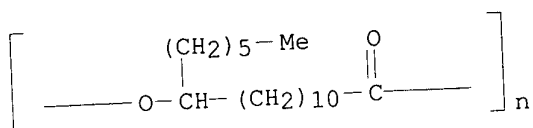
CMF C2 H5 N



RN 27941-02-2 CAPLUS

KOROMA EIC1700

CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



- IC ICM C08L093-04
 CC 37-6 (Plastics Manufacture and Processing)
 ST coloring plastic conc rosin surfactant
 IT Plastics
 RL: USES (Uses)
 (coloring of, liq. conc. for, surfactant-colorant-rosin compn. as)
 IT Flow
 (improvement of, liq. concs. for, colorant-surfactant-rosin compns. as)
 IT Rosin
 RL: USES (Uses)
 (liq. concs. contg. colorant and surfactant and, for plastics)
 IT Surfactants
 (liq. concs. contg. rosin and colorant and, for plastics)
 IT Coloring
 (of plastic, liq. conc. for, rosin-surfactant-colorant compns. as)
 IT 27924-99-8 **27941-02-2**
 RL: USES (Uses)
 (liq. concs. contg. colorant and rosin and, for plastics)
 IT 109-55-7D, N,N-Dimethyl-1,3-propanediamine, reaction products with
 hydroxystearic acid polymer **9002-98-6D**, reaction products with
 poly(hydroxystearic acid) 27924-99-8D, reaction products with
 polyethyleneamine **27941-02-2**
 RL: USES (Uses)
 (liq. concs. contg. rosin and colorants and, for plastics)
 IT 1337-89-9 37361-17-4 116675-09-3 140608-80-6
 RL: USES (Uses)
 (liq. concs. contg. surfactant and colorant and, for plastics)
 IT 127-25-3
 RL: USES (Uses)
 (rosins contg. surfactant and colorant and, as liq. concs. for coloring
 plastics)
 IT 514-10-3D, alkyl esters
 RL: USES (Uses)
 (rosins contg. surfactant and colorant and, for coloring plastics)

L36 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1990:218955 CAPLUS
 DOCUMENT NUMBER: 112:218955
 TITLE: Pigment dispersing agents and their offset printing
ink compositions
 INVENTOR(S): Ohta, Hiroshi; Matsukawa, Tsutomu; Nakada, Atsushi
 PATENT ASSIGNEE(S): Sakata Inkusu K. K., Japan
 SOURCE: Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

KOROMA EIC1700

EP 346064	A2	19891213	EP 1989-305682	19890606
EP 346064	A3	19900214		
EP 346064	B1	19921209		
R: DE, ES, FR, GB				
JP 01311177	A2	19891215	JP 1988-142681	19880609
JP 08019351	B4	19960228		
US 5000792	A	19910319	US 1989-360282	19890602
ES 2043016	T3	19931216	ES 1989-305682	19890606
			JP 1988-142681	19880609

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 112:218955

AB The title agents are prepd. by reacting CO₂H-contg. polyesters with acid value 10-60 and **amines** NH₂R₁N(R₃)R₂NH₂ (I; R₁, R₂ = C₂-6 alkylene; R₃ = Me, Et) with active H of the **amines**/CO₂H 0.8-1.0 mol. An **ink** contg. a reaction product of 11.5 g I (R₁ = R₂ = CH₂CH₂CH₂, R₃ = Me) and 300 g poly(12-hydroxystearic acid) had good storage stability (25.degree., 1 mo) and was used in printing to give prints with good gloss.

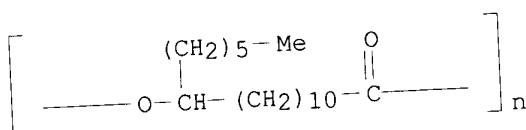
IT **27941-02-2D**, reaction products with di(aminoalkyl) **methylamines**

RL: USES (Uses)

(dispersants, for offset printing **inks**)

RN 27941-02-2 CAPLUS

CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IC ICM B01F017-34

ICS C09D017-00

CC 42-12 (Coatings, Inks, and Related Products)

Section cross-reference(s): 46

ST storage stability printing **ink** dispersant; polyhydroxystearic acid **diamine** coupling product; polyester tertiary **amine** contg dispersant

IT Dispersing agents

(polyesters coupled with di(aminoalkyl)**alkylamines** as, for offset printing **inks**)

IT Fatty acids, polymers

RL: USES (Uses)

(castor-oil, hydroxy, polymers, reaction products, with bis(aminoalkyl) **alkylamines**, dispersants as, for **inks**)

IT Polyesters, compounds

RL: USES (Uses)

(hydroxy-contg., reaction products, with bi(aminoalkyl) **methylamines**, dispersants as, for **inks**)IT **Inks**(lithog., storage-stable, dispersants for, polyesters coupled with bis(aminoalkyl)**alkylamines** as)IT 77-78-1D, quaternized ammonium salts with bis(aminopropyl) **methylamine**-terminated poly(hydroxystearic acid) 105-83-9D,

Bi(3-aminopropyl)**methylamine**, reaction products with hydroxy-contg. fatty acid polyesters 27924-99-8D, Poly(12-hydroxystearic acid), reaction products with di(aminoalkyl)**methylamines** **27941-02-2D**, reaction products with di(aminoalkyl)

methylamines 127171-38-4D, Bi(4-aminobutyl)**methylamine**
 , reaction products with hydroxy-contg. fatty acid polyesters
 RL: USES (Uses)
 (dispersants, for offset printing **inks**)

L36 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2003 ACS
 1988:475440 CAPLUS

ACCESSION NUMBER:

1988:475440 CAPLUS

DOCUMENT NUMBER:

109:75440

TITLE:

Polyester-**polyamine** dispersants for printing
inks

INVENTOR(S):

Kara, Yonosuke; Matsuyama, Asao; Kono, Michihiro;
 Kitamura, Taku

PATENT ASSIGNEE(S):

Dainippon Ink and Chemicals, Inc., Japan; Kawamura
 Physical and Chemical Research Institute
 Jpn. Kokai Tokkyo Koho, 11 pp.

SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63012335	A2	19880119	JP 1986-154190	19860702
			JP 1986-154190	19860702

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 109:75440

GI For diagram(s), see printed CA Issue.

AB The title dispersants, providing stable high-solids **inks** with good flowability, were prep'd. by reacting carboxy-terminated polyesters with reaction products of epoxides I (R = H, alkyl, Ph, alkoxyethyl, alkenoxyethyl, PhOCH₂, alkyl-substituted phenoxyethyl) or II (n = 3-10) and **polyethylenimine**. Thus, a mixt. of 60 g **polyethylenimine** and 150 g toluene was heated under reflux to obtain a soln., which was stirred with 5 g 1,2-butylene oxide for 2 h and refluxed with 113 g poly(12-hydroxystearic acid) (acid value 36.7 mg KOH/g) at 110-112.degree. for 2 h with removal of water to give a 49.7%-solids dispersant with acid value 12.5 mg KOH/g and **amine** value 96.1 mg KOH/g. C.I. Pigment Red 48-3 15, toluene 25, and the above dispersant 2 parts were dispersed using 100 parts steel balls in a paint shaker for 3 h to give a gravure **ink** with good flowability and storability without sedimentation for >1 wk.

IT **9002-98-6D, Polyethylenimine**, reaction products with epoxides and polyesters **27941-02-2D**, Poly(12-hydroxystearic acid), SRU, reaction products with **polyethylenimine** and epoxides
 RL: TEM (Technical or engineered material use); USES (Uses)
 (dispersants, for **ink** pigments)

RN 9002-98-6 CAPLUS

CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

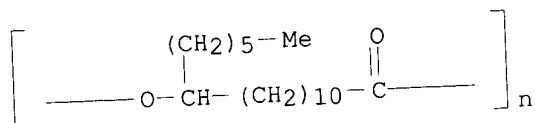
CM 1

CRN 151-56-4

CMF C2 H5 N



RN 27941-02-2 CAPLUS
 CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



- IC ICM B01F017-52
- ICS B01F017-42; B01J013-00; C08G063-76; C09D007-12
- CC 42-12 (Coatings, Inks, and Related Products)
- ST ink pigment dispersion epoxide; polyester ink pigment dispersant; **polyethylenimine** ink pigment dispersant; printing ink dispersant polyester **polyamine**
- IT Pigments
 (dispersants for, polyester-epoxide-**polyethylenimine** reaction products as)
- IT Dispersing agents
 (epoxide-**polyethylenimine**-polyester reaction products, for pigments for inks)
- IT Inks
 (pigment dispersants for, polyester-epoxide-**polyethylenimine** reaction products as)
- IT Carbon black, uses and miscellaneous
 RL: TEM (Technical or engineered material use); USES (Uses)
 (pigments, for inks, dispersants for)
- IT Polyesters, compounds
 RL: TEM (Technical or engineered material use); USES (Uses)
 (reaction products with epoxides and **polyethylenimine**, dispersants, for ink pigments)
- IT Polyamines
 RL: TEM (Technical or engineered material use); USES (Uses)
 (reaction products with epoxy resins and polyesters, dispersants, for pigments for inks)
- IT Epoxides
 RL: TEM (Technical or engineered material use); USES (Uses)
 (reaction products with **polyethylenimine** and polyesters, dispersants, for pigments for inks)
- IT Polyesters, uses and miscellaneous
 RL: TEM (Technical or engineered material use); USES (Uses)
 (**polyamine**-, dispersants, for ink pigments)
- IT Polyamines
 RL: TEM (Technical or engineered material use); USES (Uses)
 (polyester-, dispersants, for ink pigments)
- IT 75-56-9D, reaction products with **polyethylenimine** and polyesters
 96-09-3D, Styryl oxide, reaction products with **polyethylenimine** and polyesters 106-88-7D, 1,2-Butylene oxide, reaction products with **polyethylenimine** and polyesters 106-92-3D, Allyl glycidyl ether, reaction products with **polyethylenimine** and polyesters
 122-60-1D, Phenyl glycidyl ether, reaction products with **polyethylenimine** and polyesters 286-20-4D, Cyclohexane oxide, reaction products with **polyethylenimine** and polyesters
 2426-08-6D, Butyl glycidyl ether, reaction products with **polyethylenimine** and polyesters 3101-60-8D, 4-tert-Butylphenyl glycidyl ether, reaction products with **polyethylenimine** and polyesters 9002-98-6D, **Polyethylenimine**, reaction

products with epoxides and polyesters 27924-99-8D, Poly(12-hydroxystearic acid), reaction products with **polyethylenimine** and epoxides **27941-02-2D**, Poly(12-hydroxystearic acid), SRU, reaction products with **polyethylenimine** and epoxides 67557-76-0, 4-sec-Butylphenyl glycidyl ether
 RL: TEM (Technical or engineered material use); USES (Uses)
 (dispersants, for **ink** pigments)

IT 25086-48-0, Vinylite VAGH
 RL: TEM (Technical or engineered material use); USES (Uses)
 (**inks**, pigment dispersants for)

IT 147-14-8, C.I. Pigment Blue 15-3 1309-37-1, Red iron oxide, uses and miscellaneous 1328-53-6, C.I. Pigment Green 7 5280-68-2, C.I. Pigment Red 146 5468-75-7, C.I. Pigment Yellow 14 5858-81-1, C.I. Pigment Red 57 7023-61-2, C.I. Pigment Red 48-2 7585-41-3, C.I. Pigment Red 48-1 12225-04-6, C.I. Pigment Red 166 12769-01-6, C.I. Pigment Yellow 109 13463-67-7, Titanium dioxide, uses and miscellaneous 15782-05-5, C.I. Pigment Red 48-3 56396-10-2, C.I. Pigment Red 150 76168-74-6, C.I. Pigment Orange 61
 RL: TEM (Technical or engineered material use); USES (Uses)
 (pigments, for **inks**, dispersants for)

L36 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1987:409044 CAPLUS
 DOCUMENT NUMBER: 107:9044
 TITLE: Metal-containing polymeric dispersing agent
 INVENTOR(S): Canestri, Giuseppe
 PATENT ASSIGNEE(S): Bergvik Kemi AB, Swed.
 SOURCE: Eur. Pat. Appl., 25 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

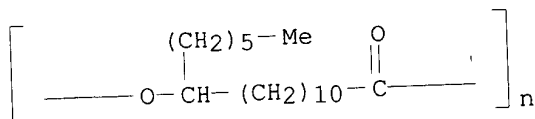
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 207026	A2	19861230	EP 1986-850197	19860604
EP 207026	A3	19871028		
EP 207026	B1	19900321		
R: DE, FR, GB, IT, SE				
JP 61285266	A2	19861216	JP 1985-125279	19850611
JP 01060184	B4	19891221		
US 4937014	A	19900626	US 1986-871388	19860606
			JP 1985-125279	19850611

PRIORITY APPLN. INFO.:

AB The compns. (XCONRYCO₂)₂ A (A = residue of a divalent metal hydroxide or ester; XCO = residue of a polyester with mol. wt. .gtoreq.1000, NRYCO = residue of an arom. or aliph. amino acid) are dispersants for dyes and pigments, esp. in printing **inks**. Heating 201 g 11-aminoundecanoic acid and 102 g Ac₂O at 100.degree. gave an amide which was heated with 200 g Cu(OAc)₂.cntdot.H₂O at 130.degree. with distn. of AcOH and H₂O and then with 6200 g poly(12-hydroxystearic acid) (CO₂H equiv. wt. 2600) at 150.degree./10 min to give a dispersant with acid no. 20-25. Dispersing this product 12, Cu sulfophthalocyanine 5, Duomeen T 2, Pigment Blue-15.3 58, and mineral oil 27 parts gave a deflocculated dispersion suitable for use in paints, lacquers, and printing **inks**

IT **27941-02-2D**, Poly(12-hydroxystearic acid), SRU, reaction products with amino acids, metal salts
 RL: USES (Uses)

(dispersants, for pigments in printing **inks** and coatings)
 RN 27941-02-2 CAPLUS
 CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



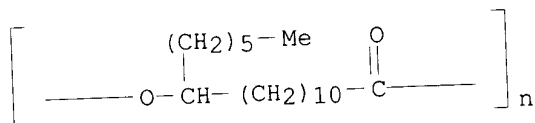
- IC ICM B01F017-00
 ICS C08G069-44; C09B067-00
 CC 42-12 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 35, 46
 ST dispersant pigment **ink** coating; printing **ink** pigment
 dispersant; polyester dispersant pigment; hydroxystearate polyester
 dispersant; aminoundecanoic acid adduct dispersant; copper salt polymer
 dispersant
 IT Pigments
 (dispersants for, in printing **inks** and coatings,
 polyester-amino acid reaction product metal salts as)
 IT Dispersing agents
 (polyester-amino acid reaction product metal salts, for pigments in
 printing **inks** and coatings)
 IT Polyesters, compounds
 RL: USES (Uses)
 (reaction products with amino acids, metal salts, dispersants, for
 pigments in coatings and printing **inks**)
 IT Amino acids, compounds
 RL: USES (Uses)
 (reaction products with polyesters, metal salts, dispersants, for
 pigments in printing **inks** and coatings)
 IT **Inks**
 (printing, pigment dispersants for, polyester-amino acid reaction
 product metal salts as)
 IT **Amines**, compounds
 RL: USES (Uses)
 (N-tallow alkyltrimethylenedi-, reaction products, with polyesters and
 amino acids, metal salts, dispersants, for pigments in printing
inks and coatings)
 IT 56-89-3D, Cystine, reaction products with polyesters, metal salts
 85-44-9D, reaction products with **phthalalkylpropanediamines** and
 polyesters, metal salts 124-09-4D, 1,6-**Hexanediamine**, reaction
 products with polyesters and amino acids, metal salts 515-94-6D,
 2,3-Diaminopropionic acid, reaction products with polyesters, metal salts
 660-88-8D, 5-Aminopentanoic acid, reaction products with polyesters, metal
 salts 1120-12-3D, 9-Aminopelargonic acid, reaction products with
 polyesters, metal salts 7429-90-5D, Aluminum, salts with polyester-amino
 acid reaction products 7439-95-4D, Magnesium, salts with polyester-amino
 acid reaction products 7440-02-0D, Nickel, salts with polyester-amino
 acid reaction products 7440-50-8D, Copper, salts with polyester-amino
 acid reaction products 7440-66-6D, Zinc, salts with polyester-amino acid
 reaction products 7440-70-2D, Calcium, salts with polyester-amino acid
 reaction products 27924-99-8D, Poly(12-hydroxystearic acid), reaction
 products with amino acids, metal salts **27941-02-2D**,
 Poly(12-hydroxystearic acid), SRU, reaction products with amino acids,
 metal salts 106738-27-6D, reaction products with polyesters, metal salts
 RL: USES (Uses)

(dispersants, for pigments in printing **inks** and coatings)

L36 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1986:52208 CAPLUS
 DOCUMENT NUMBER: 104:52208
 TITLE: Polymeric dispersants
 PATENT ASSIGNEE(S): Canesttori, G., Italy
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60147224	A2	19850803	JP 1984-1427	19840110
JP 01016529	B4	19890324		
EP 198994	A1	19861029	EP 1985-850145	19850426
EP 198994	B1	19881102		

R: DE, FR, GB, IT, NL, SE
 PRIORITY APPLN. INFO.: JP 1984-1427 19840110
 AB Dispersants for solid particles in org. solvents, useful in manuf. of lithog. printing **inks**, are prepd. by modifying polymers (mol. wt. .gtoreq.1000) with **triazinediamines** in the presence of epoxides. Thus, 187.2 g **benzoguanamine** in 200 g 9:1 PhMe-dichloropropane was heated with 372 g ethylhexyl glycidyl ether at 140.degree. and then with 4854 g poly(12-hydroxystearic acid) (acid no. 23.1 mg KOH/g) and 36 g p-MeC6H4SO3H at 170.degree. to give a dispersant. Mixing 10 parts dispersant and 50 parts pigment for 30 min gave a homogeneous soln.
 IT **27941-02-2D**, reaction products with epoxides and diaminotriazines
 RL: USES (Uses)
 (dispersants, for pigments in solvents)
 RN 27941-02-2 CAPLUS
 CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IC ICM B01F017-52
 ICS B01J013-00; C08G063-70; C08G073-06; C09D011-10
 CC 42-12 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 46
 ST ethylhexyl glycidyl ether dispersant; **benzoguanamine** adduct
 dispersant; printing **ink** pigment dispersant; glycidyl ether
 adduct dispersant; hydroxystearic acid polymer dispersant
 IT Pigments
 (dispersants for, in solvents, **triazinediamine**
 -epoxide-polyester reaction products as)
 IT Epoxides
 RL: USES (Uses)
 (reaction products with diaminotriazines and polyesters, dispersants
 for pigments in solvents)
 IT Polyesters, compounds

KOROMA EIC1700

RL: USES (Uses)
 (reaction products with epoxides and diaminotriazines, dispersants for pigments in solvents)

IT Dispersing agents
 (**triazinediamine**-epoxide-polyester reaction products, for pigments in solvents)

IT Rubber, butadiene, compounds
 RL: USES (Uses)
 (carboxy-terminated, reaction products with epoxides and diaminotriazines, dispersants for pigments in solvents)

IT **Inks**
 (printing, pigment dispersants for, **triazinediamine**-epoxide-polyester reaction products as)

IT 75-56-9D, reaction products with **triazinediamines** and polyesters
 91-76-9D, reaction products with epoxides and polyesters 106-88-7D, reaction products with **triazinediamines** and polyesters
 106-92-3D, reaction products with **triazinediamines** and polyesters 122-60-1D, reaction products with **triazinediamines** and polyesters 542-02-9D, reaction products with epoxides and polyesters
 2426-08-6D, reaction products with **triazinediamines** and polyesters 2461-15-6D, reaction products with **triazinediamines** and polyesters 27924-99-8D, reaction products with epoxides and diaminotriazines 27925-02-6D, reaction products with epoxides and diaminotriazines **27941-02-2D**, reaction products with epoxides and diaminotriazines 27941-05-5D, reaction products with epoxides and diaminotriazines
 RL: USES (Uses)
 (dispersants, for pigments in solvents)

L36 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1984:193630 CAPLUS
 DOCUMENT NUMBER: 100:193630
 TITLE: Phthalocyanine pigments
 PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58168661	A2	19831005	JP 1982-51181	19820331
JP 01030867	B4	19890622		

PRIORITY APPLN. INFO.: JP 1982-51181 19820331

AB Phthalocyanine pigment is prepd. by grinding a crude phthalocyanine in an aq. medium contg. a phthalocyanine deriv. and a polyester chain-contg. compd. as the dispersing agents. The pigment has a clear color and is prepd. in a short time. Thus, 100 parts crude phthalocyanine blue [147-14-8], 4 parts CuPc(CH₂NPr₂)₃ [89933-93-7] (Pc = phthalocyanine), 10 parts reaction product of 3-(dimethylamino)propylamine and poly(12-hydroxystearic acid), and 500 parts water were milled to give the pigment.

IT **9002-98-6D**, reaction products with hydroxystearic acid polyester
27941-02-2D, reaction products with amines

RL: USES (Uses)
 (dispersion agents, copper phthalocyanine pigment conditioning in presence of)

KOROMA EIC1700

RN 9002-98-6 CAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

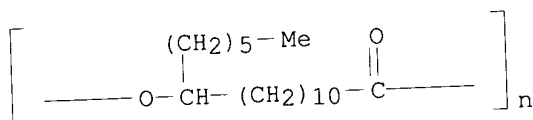
CM 1

CRN 151-56-4

CMF C2 H5 N



RN 27941-02-2 CAPLUS
CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IC C09B067-20
CC 42-6 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41
ST phthalocyanine pigment conditioning; copper phthalocyanine pigment conditioning; polyester dispersant phthalocyanine pigment; amine polyester dispersant phthalocyanine
IT Dispersing agents
(amine-polyester reaction products and copper phthalocyanine derivs., phthalocyanine pigment conditioning in presence of)
IT Polyesters, compounds
RL: USES (Uses)
(reaction products with amines, dispersing agents, phthalocyanine pigment conditioning in presence of)
IT 109-55-7D, reaction products with polyesters 502-44-3D, reaction products with (dimethylamino)propylamine 9002-98-6D, reaction products with hydroxystearic acid polyester 26854-10-4 27924-99-8D, reaction products with amines 27941-02-2D, reaction products with amines 36354-98-0 41638-59-9 89933-90-4 89933-91-5 89933-92-6 89933-93-7 90032-30-7
RL: USES (Uses)
(dispersion agents, copper phthalocyanine pigment conditioning in presence of)
IT 147-14-8
RL: USES (Uses)
(pigment, conditioning of)

L36 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1979:441059 CAPLUS
DOCUMENT NUMBER: 91:41059
TITLE: Dispersants and their use in paints and inks
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd., UK
SOURCE: Neth. Appl., 8 pp.
CODEN: NAXXAN
DOCUMENT TYPE: Patent
LANGUAGE: Dutch

KOROMA EIC1700

FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 7807584	A	19790117	NL 1978-7584	19780714
NL 184624	B	19890417		
NL 184624	C	19890918		
US 4224212	A	19800923	US 1978-919831	19780628
GB 2001083	A	19790124	GB 1978-28259	19780629
GB 2001083	B2	19820630		
AU 7837802	A1	19800110	AU 1978-37802	19780706
AU 518818	B2	19811022		
BE 868890	A1	19790110	BE 1978-189199	19780710
CA 1117689	A1	19820202	CA 1978-307181	19780711
FR 2397226	A1	19790209	FR 1978-21061	19780713
FR 2397226	B1	19850906		
JP 54037082	A2	19790319	JP 1978-84640	19780713
JP 63030057	B4	19880616		
DK 7803172	A	19790116	DK 1978-3172	19780714
DK 152564	B	19880321		
DK 152564	C	19881010		
CH 640150	A	19831230	CH 1978-7665	19780714
			GB 1977-29803	19770715

PRIORITY APPLN. INFO.:

AB Dispersing agents, useful for forming dispersions of dyes and pigments in org. liqs., consist of reaction products of poly(**alkyleneimines**) and polyesters contg. free CO₂H groups, and can be salts or amides, depending on reaction conditions. Thus, 500 parts **polyethylenimine** of mol. wt. 1200 and 133.2 parts poly(12-hydroxystearic acid) with acid no. 35.0 mg KOH/g were heated 2 h at 150.degree. to give a water-insol., toluene-sol. dispersant (I) with acid no. 5.2 mg KOH/g. A liq. pigment dispersion suitable for use in gravure printing **inks** was obtained by ball-milling polychlorinated Cu phthalocyanine 3, I 0.9, and petroleum fraction (b. 100-20.degree.) 6.1 parts for 16 h. The dispersants were also useful in textile printing and dyeing compns.

IT **9002-98-6D**, reaction products with carboxy group-contg. polyesters
27941-02-2D, reaction products with **polyethylenimine**
RL: USES (Uses)

(dispersing agents, for dyes and pigments in org. liqs.)

RN 9002-98-6 CAPLUS

CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4

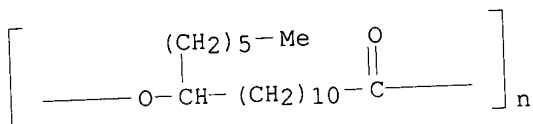
CMF C2 H5 N

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N

RN 27941-02-2 CAPLUS

CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)

KOROMA EIC1700



- IC C08G081-00; B01F017-00; C08G063-76
 CC 42-12 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 39, 40
 ST polyester **polyethylenimine** adduct dispersant;
 polyhydroxystearate **polyethylenimine** adduct; pigment **ink**
 dispersant; dye dispersant; printing **ink** dispersant
 IT Dispersing agents
 (carboxylated polyester-**polyalkylenimine** reaction products,
 for dyes and pigments in org. liqs.)
 IT Textile printing
 (dispersing agents for dyes and pigments in, carboxylated polyester-
polyalkylenimine reaction products as)
 IT **Inks**
 (dispersing agents for pigments in, carboxylated polyester-
polyalkylenimine reaction products as)
 IT Dyes
 Pigments
 (dispersing agents for, carboxylated polyester-**polyalkylenimine**
 reaction products as)
 IT Polyesters, uses and miscellaneous
 RL: USES (Uses)
 (carboxy group-contg., reaction products with **polyethylenimine**
 , dispersing agents, for dyes and pigments, in org. liqs.)
 IT **9002-98-6D**, reaction products with **polyethylenimine**
27924-99-8D, reaction products with **polyethylenimine**
27925-02-6D, reaction products with **polyethylenimine**
27941-02-2D, reaction products with **polyethylenimine**
27941-05-5D, reaction products with **polyethylenimine**
 RL: USES (Uses)
 (dispersing agents, for dyes and pigments in org. liqs.)

L36 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2003 ACS
 1979:139207 CAPLUS

ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE: Dispersing agent, dispersions containing it, and
 dispersions-containing pigments and printing
inks

INVENTOR(S): Topham, Arthur
 PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd., UK
 SOURCE: Ger. Offen., 25 pp.
 CODEN: GWXXBX

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2830860	A1	19790201	DE 1978-2830860	19780713
DE 2830860	C2	19881229		
US 4224212	A	19800923	US 1978-919831	19780628
GB 2001083	A	19790124	GB 1978-28259	19780629

KOROMA EIC1700

GB 2001083	B2	19820630	AU 1978-37802	19780706
AU 7837802	A1	19800110		
AU 518818	B2	19811022	BE 1978-189199	19780710
BE 868890	A1	19790110	CA 1978-307181	19780711
CA 1117689	A1	19820202	FR 1978-21061	19780713
FR 2397226	A1	19790209		
FR 2397226	B1	19850906	JP 1978-84640	19780713
JP 54037082	A2	19790319		
JP 63030057	B4	19880616	DK 1978-3172	19780714
DK 7803172	A	19790116		
DK 152564	B	19880321		
DK 152564	C	19881010	CH 1978-7665	19780714
CH 640150	A	19831230	GB 1977-29803	19770715

PRIORITY APPLN. INFO.:

AB Reaction products of .gtoreq.2 mol CO₂H-contg. polyester with 1 mol **polyalkylenimine** are dispersing agents for pigments in printing **inks**. Thus, stirring 50 parts **polyethylenimine** (PEI 12, mol. wt. 1200) and 133.2 parts 12-hydroxystearic acid polymer (acid no. 35.0 mg KOH/g) 2 h at 150.degree. with H₂O-distn. gives a product with acid no. 5.2. Ball-milling a mixt. of this product 0.9, chlorinated Cu phthalocyanine 3, and petroleum fraction (b. 100-20.degree.) 6.1 parts gives a mobile dispersion suitable for use in gravure **inks**.

IT 9002-98-6D, reaction products with carboxylated polyesters
27941-02-2D, reaction products with **polyethylenimine**
RL: USES (Uses)
(dispersing agents, for pigments in printing **inks**)

RN 9002-98-6 CAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

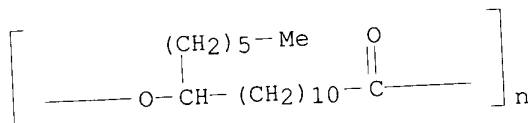
CM 1

CRN 151-56-4

CMF C2 H5 N



RN 27941-02-2 CAPLUS
CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IC B01F017-22
CC 42-12 (Coatings, Inks, and Related Products)
ST pigment printing **ink** dispersant; dispersing agent pigment **ink**; hydroxystearic acid polymer dispersant; **polyethylenimine** condensate polyester dispersant
IT Pigments
(dispersing agents for, in printing **inks**, polyester-**polyethylenimine** reaction products as)
IT Dispersing agents

KOROMA EIC1700

- (polyester-**polyethylenimine** reaction products, for pigments in printing **inks**)
- IT Polyesters, compounds
RL: USES (Uses)
(reaction products with **polyethylenimine**, dispersants, for pigments in printing **inks**)
- IT Fatty acids, polymers
RL: USES (Uses)
(castor-oil, polymers, reaction products with **polyethylenimine**, dispersants for pigments in printing **inks**)
- IT **Inks**
(printing, pigments in, dispersants for)
- IT 9002-98-6D, reaction products with carboxylated polyesters
27924-99-8D, reaction products with **polyethylenimine**
27941-02-2D, reaction products with **polyethylenimine**
RL: USES (Uses)
(dispersing agents, for pigments in printing **inks**)

L36 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1977:31081 CAPLUS
DOCUMENT NUMBER: 86:31081
TITLE: Dispersing agents
INVENTOR(S): Stansfield, James F.; Topham, Arthur
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd., UK
SOURCE: U.S., 7 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

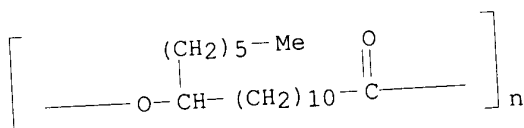
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3996059	A	19761207	US 1974-536479	19741226
			GB 1971-60731	19711230
			US 1972-313632	19721211
			GB 1974-53946	19741213

PRIORITY APPLN. INFO.:

AB Readily-dispersible pigment preps. contain 5-70% pigment and 5-50% dispersant which is an **amine** or quaternary ammonium deriv. of a C .gtoreq.8 hydroxyalkanoic acid polymer. Thus, heating 1600 parts 12-hydroxystearic acid polymer [27924-99-8] (acid no. 35.0 mg KOH/g) and 102 parts Me₂N(CH₂)₃NH₂ [109-55-7] 2.5 h at 160.degree. and 2.75 h at 190-200.degree. gives an amide (I), tertiary **amine** content 0.557 equiv./kg, acid no. 12.3. Ball-milling I 1.3, Pb sulfochromate 3, Cu phthalocyaninedisulfonate 0.2, and petroleum fraction (b. 100-20.degree.) 5.5 parts 16 h give a well-deflocculated dispersion suitable for paints and printing **inks**.

IT 27941-02-2D, aminoamide derivs.
RL: USES (Uses)
(dispersants, for pigments)

RN 27941-02-2 CAPLUS
CN Poly[oxy(1-hexyl-12-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



KOROMA EIC1700

IC C09C003-00
 NCL 106308000N
 CC 42-5 (Coatings, Inks, and Related Products)
 ST pigment dispersion agent; polyester amide dispersant; hydroxystearic acid
 polymer dispersant; stearic acid hydroxy polyester
 IT Quaternary ammonium compounds, polymers
 RL: USES (Uses)
 (dispersants, for pigments)
 IT Pigments
 (dispersing agents for, polyesters amides as)
 IT Dispersing agents
 (hydroxyalkanoic acid polymer amides, for pigments)
 IT Amides, uses and miscellaneous
 RL: USES (Uses)
 (of hydroxyalkanoic acid polymers, dispersants, for pigments)
 IT Polyesters, compounds
 RL: USES (Uses)
 (reaction products with **diamines**, dispersants, for
 polyesters)
 IT 100-37-8D, reaction products with 12-hydroxystearic acid polymer and
 dimethyl sulfate 106-89-8D, reaction products with N,N-
dimethyldodecylamine and 12 hydroxystearic acid polymer
 109-55-7D, reaction products with polyesters 112-18-5D, reaction
 products with 12-hydroxystearic acid polymer and epichlorohydrogen
 4253-76-3D, reaction products with polyesters 27924-99-8D, aminoamide
 derivs. 27925-02-6D, aminoamide derivs. **27941-02-2D**,
 aminoamide derivs.
 RL: USES (Uses)
 (dispersants, for pigments)